CHAPTER 3

Fertility

This chapter presents findings concerning fertility levels, differentials, and time trends for the four countries being examined in this report. Information is also presented on indicators of exposure to the risk of pregnancy (i.e., age at first sexual relation), planned and unplanned fertility, and ideal number of living children.

Much of the following analysis is in terms of age-specific and total fertility rates (TFR). The TFR is interpreted as the number of births a woman would have during her childbearing years if she passed through those years experiencing the observed age-specific rates.

Fertility Levels and Trends

Table 3.1 and Graph 3.1 show TFRs based on data collected in surveys conducted since the late 1980s (except Nicaragua). Focusing first on the most recent survey conducted in each country, El Salvador and Nicaragua have the lowest TFRs (3.0 and 3.2 live births per woman, respectively). Somewhat higher fertility was found for Guatemala and Honduras (4.4 live births per woman). To put these levels in perspective, the TFR estimated for Costa Rica in 2000 was 2.4 live births per woman, the lowest TFR in the Central American region.

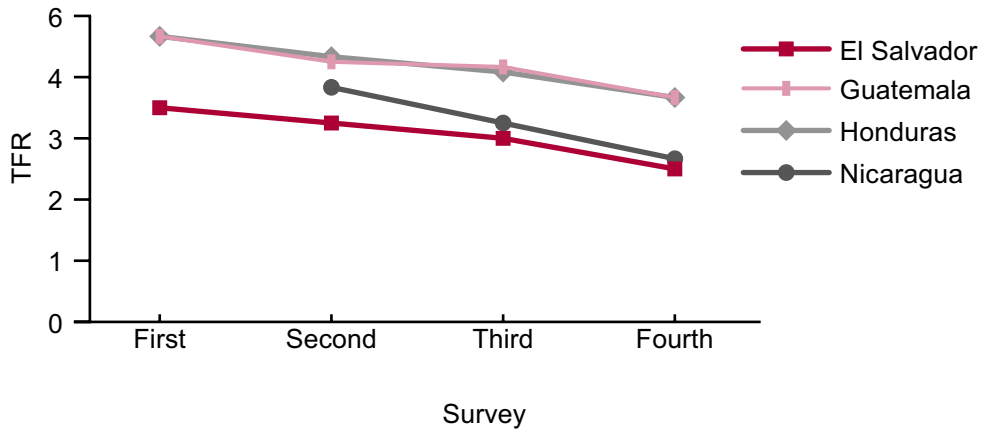
Table 3.1
Trends in Total Fertility Rates, by Area of Residence: Women Aged 15-49

Country	Year of Survey	Time Period	Total	Urban	Rural
El Salvador	1988*	1983–1988	4.2	nc	nc
El Salvador	1993	1988–1993	3.9	3.1	4.7
El Salvador	1998	1993–1998	3.6	2.8	4.6
El Salvador	2002/03	1997–2002	3.0	2.4	3.8
Guatemala	1987*	1983–1987	5.6	4.1	6.5
Guatemala	1995	1992–1995	5.1	3.8	6.2
Guatemala	1998/99	1995–1998	5.0	4.1	5.8
Guatemala	2002	1999–2002	4.4	3.4	5.2
Honduras	1987*	1986/87	5.6	3.9	6.9
Honduras	1991/92	1989–1991	5.2	3.9	6.5
Honduras	1996	1993–1995	4.9	3.5	6.3
Honduras	2001	1998–2000	4.4	3.3	5.6
Nicaragua	1992/93	1987–1992	4.6	3.4	6.4
Nicaragua	1998	1993–1998	3.9	3.1	5.4
Nicaragua	2001	1999–2001	3.2	2.6	4.4

* Women aged 15–44.

nc - not comparable (sample in 1988 excluded some rural areas due to conflict)

Graph 3.1
Trends in the Total Fertility Rate (Four Most Recent Surveys)



In all of the countries, fertility has been declining since the late 1980s or early 1990s. The pace of fertility decline from the first to last survey shown for each country in the table ranges from 30.4 percent in Nicaragua, to 28.5 percent in El Salvador, and to 21.4 percent each in Guatemala and Honduras.

Many studies have shown fertility levels to be lower among women with higher levels of education. This is true for the populations examined in this report, as shown in Table 3.2. The differential, at the time of the most recent survey, between women with the highest and lowest level of education in the table, ranges from 2.8 births in El Salvador, to 3.5 births in Nicaragua, 3.8 births in Honduras and 4.3 births in Guatemala. Generally, those with at least some secondary education have TFRs below 3.0, both in the most recent and earlier surveys. The recent fertility declines have been concentrated among women with just primary education.

Table 3.2
Trends in Total Fertility Rates, According to Education: Women Aged 15–49

Country/Education	Year of Survey		
El Salvador	1993	1998	2002/03
Total	3.9	3.6	3.0
None	5.4	5.0	4.5
1–3	4.8	4.7	3.6
4–6	3.8	3.6	2.7
7–9	3.1	3.2	2.2
10+	2.3	2.4	1.7
Guatemala	1995	1998/99	2002
Total	5.1	5.0	4.4
None	7.1	6.8	6.4
Primary	5.1	5.2	4.7
Secondary+	2.6	2.9	2.1
Honduras	1991/92	1996	2001
Total	5.2	4.9	4.4
None	7.0	7.1	6.5
1–3	6.4	6.1	5.9
4–6	4.9	4.8	4.4
7+	3.1	2.9	2.7
Nicaragua	1992/93	1998	2001
Total	4.6	3.9	3.2
None	6.9	6.1	5.2
1–3	5.8	5.2	4.2
4–6	4.3	4.1	3.3
Secondary	3.1	2.7	2.5
Superior	2.0	1.5	1.7

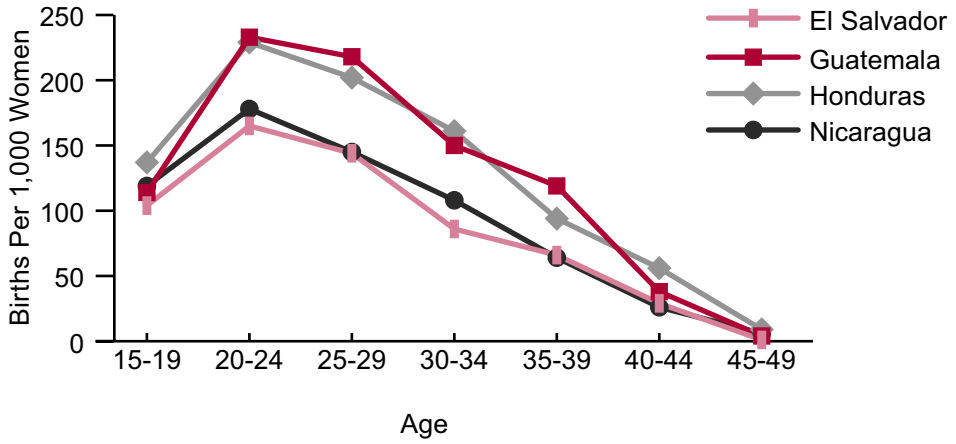
Age-specific fertility rates for each country are shown in Table 3.3 and Graph 3.2. The age-specific fertility rate is defined as the annual number of births per 1,000 women in the age group. Focusing first on the most recent survey, the countries exhibit a common age pattern of fertility, which is characterized by an early onset of childbearing and the completion of childbearing at a relatively late age. Childbearing begins in the late teenage years and peak fertility occurs in the age interval 20–24. The decline in the fertility rates after age 20–24 is gradual until age 30–34 is reached, when a steep decline begins. The age-specific rates for Guatemala and Honduras are similar and the age-specific rates for El Salvador and Nicaragua are similar. Honduras is notable for having the highest rate for women 15–19 (136 annual births per 1,000 women).

Graph 3.3 shows the changes in age-specific fertility rates (ASFR's) between the third from last survey conducted in the early 1990s and the most recent survey since 2000. Nicaragua is notable for having the most pronounced declines for virtually every age group, followed by El Salvador. In Honduras the ASFR declines are concentrated among women over 24, and Guatemala has an irregular pattern with a particularly large decline in the 30–34 age group. With one exception, there has been a decline in fertility for each age group in each country since the early 1990s. The exception is Honduras where the age-specific fertility rate for women aged 15–19 has remained virtually unchanged.

Table 3.3
Trends in Age-Specific and Total Fertility Rates: Women Aged 15–49

Country	Year of Survey	Age							
		15–19	20–24	25–29	30–34	35–39	40–44	45–49	TFR
El Salvador	1993	124	221	168	126	86	39	3	3.9
El Salvador	1998	116	211	167	118	68	29	8	3.6
El Salvador	2002/03	104	165	144	86	66	29	1	3.0
Guatemala	1995	126	262	235	200	136	54	13	5.1
Guatemala	1998/99	117	276	236	182	131	60	7	5.0
Guatemala	2002	114	233	218	150	119	38	4	4.4
Honduras	1991/92	132	264	232	191	134	74	16	5.2
Honduras	1996	136	243	210	169	142	78	12	4.9
Honduras	2001	137	229	202	161	94	56	9	4.4
Nicaragua	1992/93	158	251	198	148	103	41	13	4.6
Nicaragua	1998	139	203	173	132	82	35	9	3.9
Nicaragua	2001	119	178	145	108	64	26	6	3.2

Graph 3.2
Age-Specific Fertility Rates
(Most Recent Survey)



Graph 3.3
Reductions in Age-Specific Fertility Rates (ASFR's)
From the Early 1990s to the Early 2000s
(Third From Last and Last Surveys)

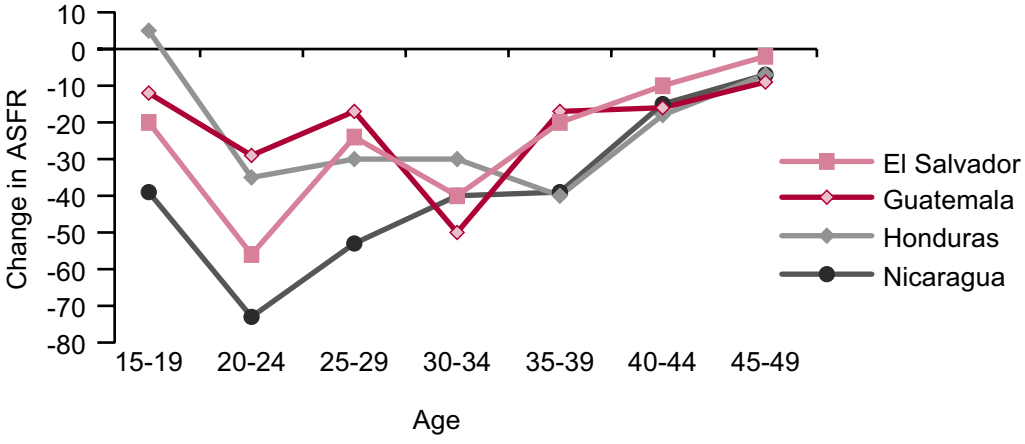
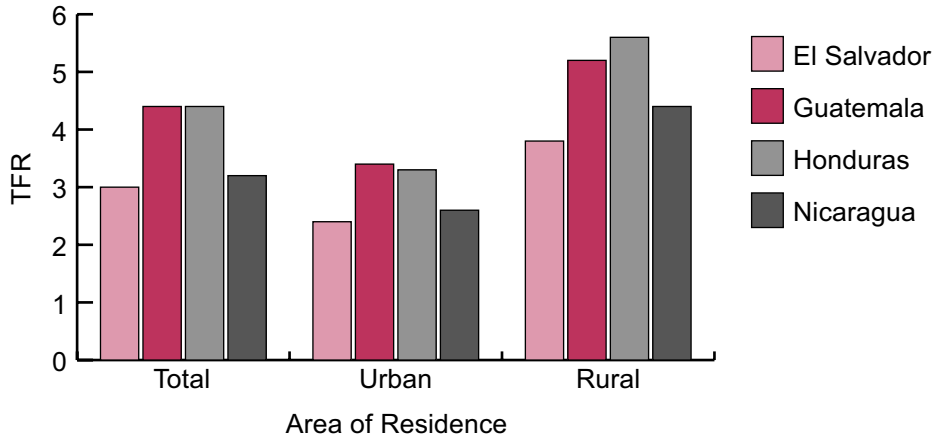


Table 3.4
Age-Specific and Total Fertility Rates, According to Area of Residence: Women Aged 15–49 (Most Recent Survey)

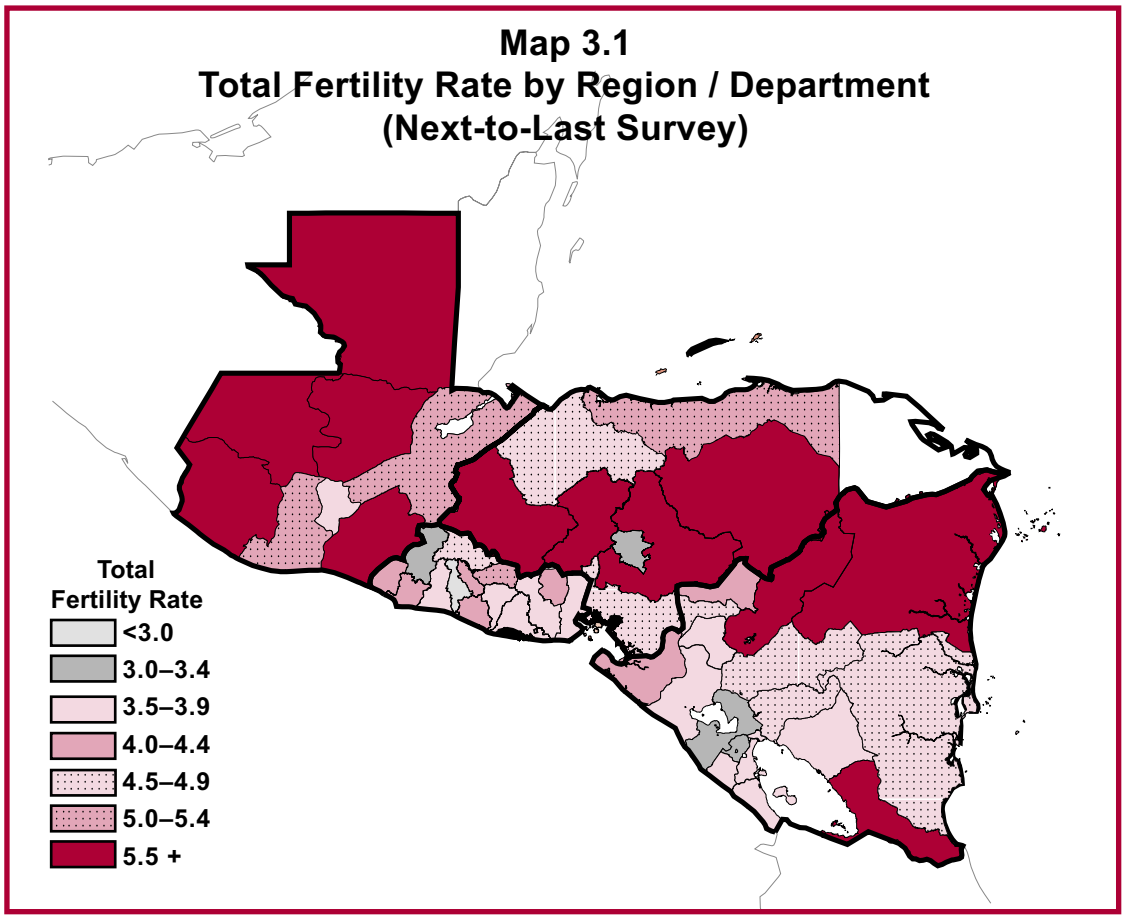
Country/Area	Year of Survey	Age 15–19	20–24	25–29	30–34	35–39	40–44	45–49	TFR
El Salvador	2002/03								
Total		104	165	144	86	66	29	1	3.0
Urban		88	138	118	62	52	15	0	2.4
Rural		124	202	176	118	86	47	2	3.8
Guatemala	2002								
Total		114	233	218	150	119	38	4	4.4
Urban		85	184	191	101	87	20	2	3.4
Rural		133	267	240	190	145	50	7	5.2
Honduras	2001								
Total		137	229	202	161	94	56	9	4.4
Urban		114	183	160	120	55	28	1	3.3
Rural		162	277	249	202	131	84	20	5.6
Nicaragua	2001								
Total		119	178	145	108	64	26	6	3.2
Urban		99	149	119	89	39	14	2	2.6
Rural		153	226	186	141	107	49	13	4.4

Table 3.4 shows urban/rural differentials for age-specific and total fertility rates, according to the most recent survey in each country. In all of the countries, very little childbearing occurs among women older than 44 years, although rural women in Honduras aged 45–49 continue to bear children at a rate of 20 per 1,000 women. In all four countries fertility remains relatively

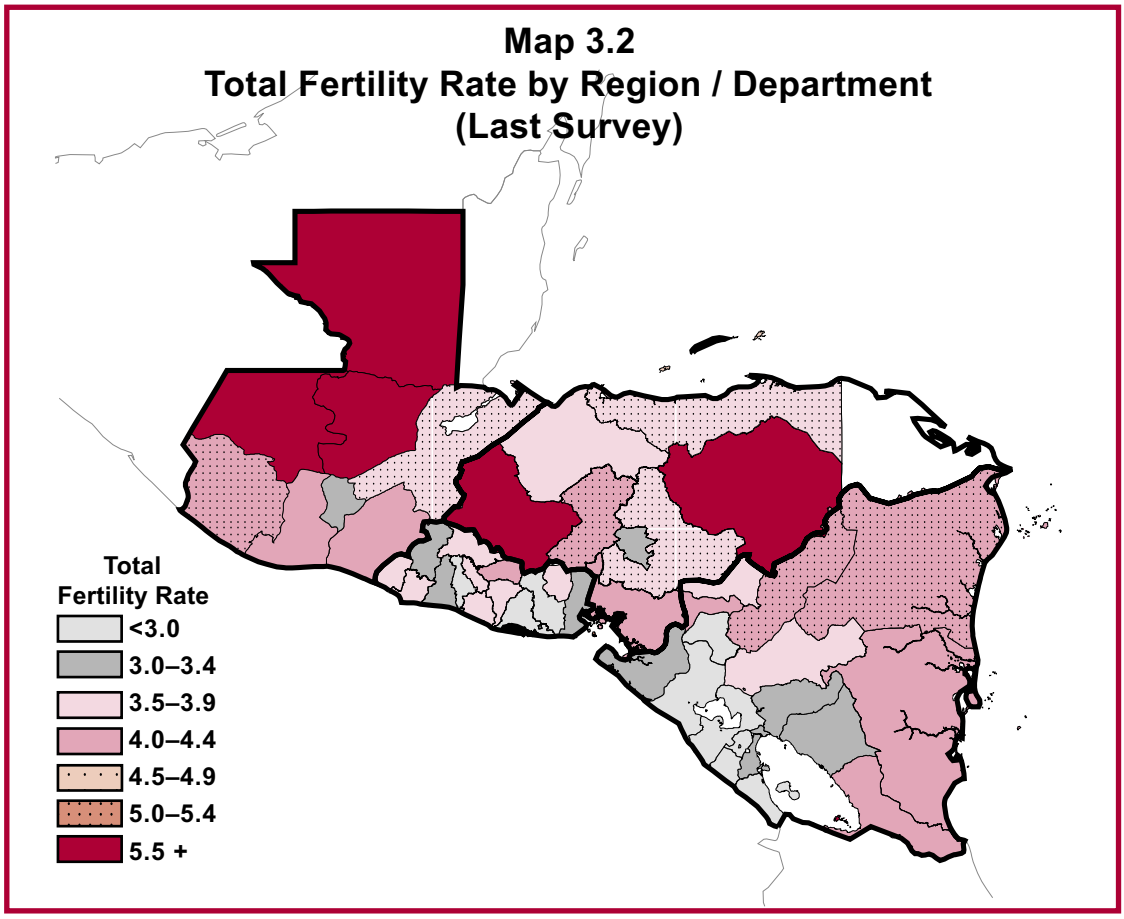
Graph 3.4
Total Fertility Rates, By Area Of Residence
(Most Recent Survey)



high in the rural area compared to the urban area (see Graph 3.4). For example, the rural TFR for Honduras was 5.6 births compared to 3.3 births estimated for urban areas, for a difference of 2.3 live births per woman. In Guatemala and Nicaragua the difference is 1.8 births, while in El Salvador it is 1.4 births.



Maps 3.1 and 3.2 show the total fertility rates for subnational regions, according to the next to last and last surveys in each of the four countries. It is notable that for both periods of time there are large areas within Guatemala and Honduras with TFRs above 5 children per woman. Within these two countries the only regions with TFRs below 4 are those containing Guatemala City,



Tegucigalpa and San Pedro Sula. El Salvador and Nicaragua, on the other hand, exhibit a more generalized fertility decline with most departments having TFRs below 4. In the most recent surveys, El Salvador has three departments with TFRs below 3 and Nicaragua has 6, mostly on the Pacific coast of the country.

Median Age at First Intercourse, First Union, and First Birth

Fertility at younger ages is strongly affected by the ages at which women (and men) become sexually active, get married and become parents for the first time. Table 3.5 shows the median age at first intercourse, first union (either married or consensual), and first birth for women aged 15–49 and men aged 15–59. The median age is the age by which 50 percent of women (or men) have experienced the event in question. El Salvador, Guatemala and Honduras all have similar median ages for all three events, for both women and men. Nicaraguan women stand out as having somewhat younger ages for all three events than their counterparts in the other three countries. There are no comparable data available on Nicaraguan men. Women's age at first union exhibits the largest differential, varying between 19.8 in El Salvador and 18.3 in Nicaragua.

The male/female differentials are large and are similar for all three countries. Men report younger ages at first intercourse, but considerably older ages at first union and first birth. As a consequence the gap between first intercourse and first union is fairly large for men (between 6.1 and 6.8 years) and is fairly narrow for women (between 0.7 and 1.4 years). The delay between first union and first birth is similar for men and women.

Maps 3.3 and 3.4 show that there are regional variations within countries in the age at first sex and age at first birth for women aged 15–49. These variations are similar to those for the total fertility rate. Considering age at first sex, only isolated areas around Guatemala City, San Miguel and Tegucigalpa register a median age older than 18. For age at first birth, however, there are larger regions on the Pacific coasts of Guatemala and Nicaragua, western Honduras and most of El Salvador, where the median age is 20 or older.

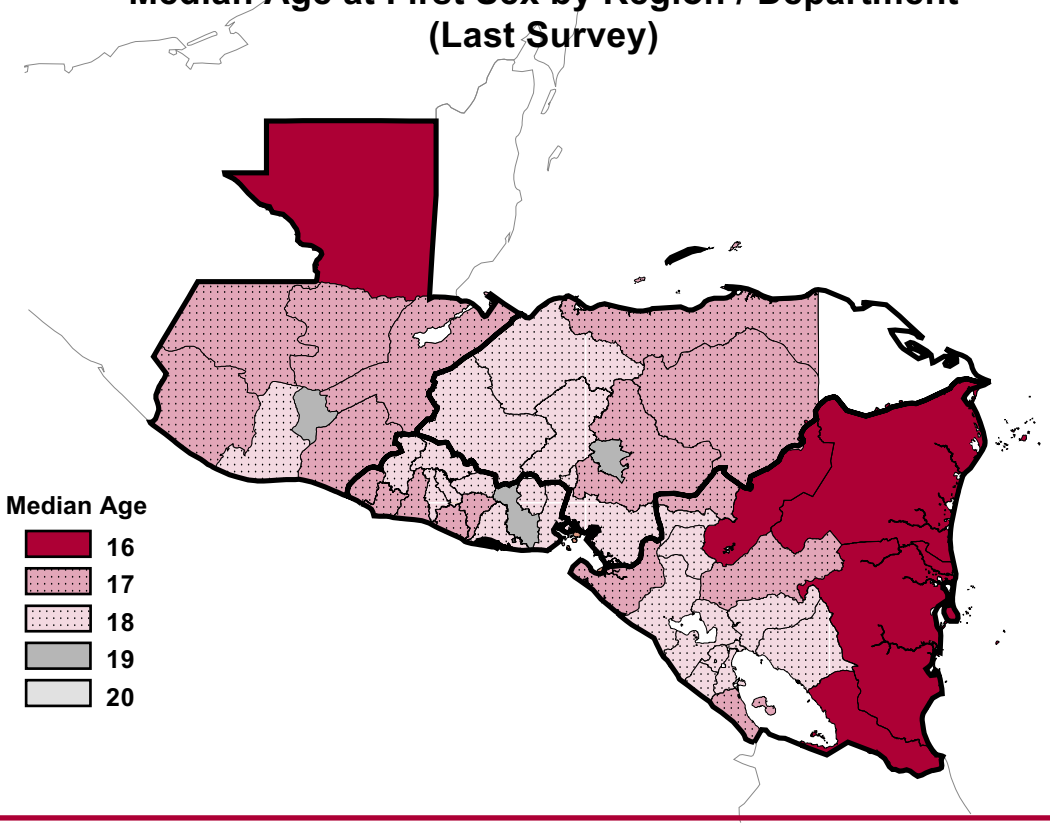
Table 3.5
Median Age at First Intercourse, First Union, and First Birth, According to Sex of Respondent: Women Aged 15–49 and Men Aged 15–59 (Most Recent Survey)

Country/Sex	First Intercourse	First Union	First Birth
El Salvador			
Women	18.4	19.8	20.5
Men	16.0	22.5	24.2
Guatemala			
Women	18.4	19.3	20.4
Men	16.9	23.0	24.3
Honduras			
Women	18.3	19.0	20.2
Men	16.0	22.8	24.3
Nicaragua			
Women	17.9	18.3	19.6*
Men	na	na	na

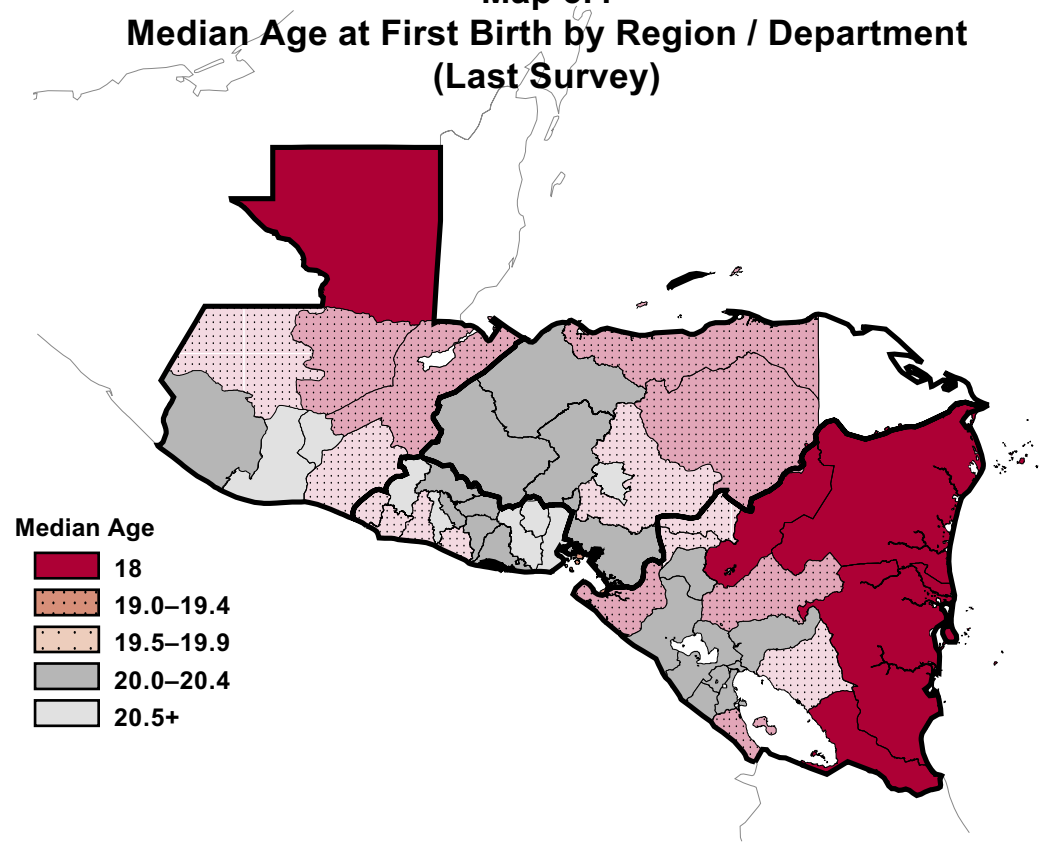
na: Not available.

* Women aged 25–49.

Map 3.3
Median Age at First Sex by Region / Department (Last Survey)



Map 3.4
Median Age at First Birth by Region / Department (Last Survey)



Percent Married or in a Consensual Union

As can be seen in Table 3.6, while women enter unions (marriage or consensual) younger than men, they are less likely to be in a union at older ages. In El Salvador and Guatemala at ages under 35 and in Honduras under 30, women are more likely to be in a union than men, but beyond that age men are more likely to be in a union. This reflects that women are more likely to be separated, widowed or divorced at these ages. It appears that men are more likely than women to have subsequent unions after separating. The sex differential is particularly pronounced for women 40 and older in El Salvador and Honduras.

Birth Intervals

An important aspect of fertility behavior beyond the absolute number of births a woman has is the spacing between births. It has been demonstrated that shorter birth intervals are associated with a heightened risk of infant mortality. Generally, a birth at an interval less than 36 months is at higher risk and intervals less than 24 months are at considerably greater risk. As use of family planning for birth spacing increases, the proportion of births occurring after short intervals declines.

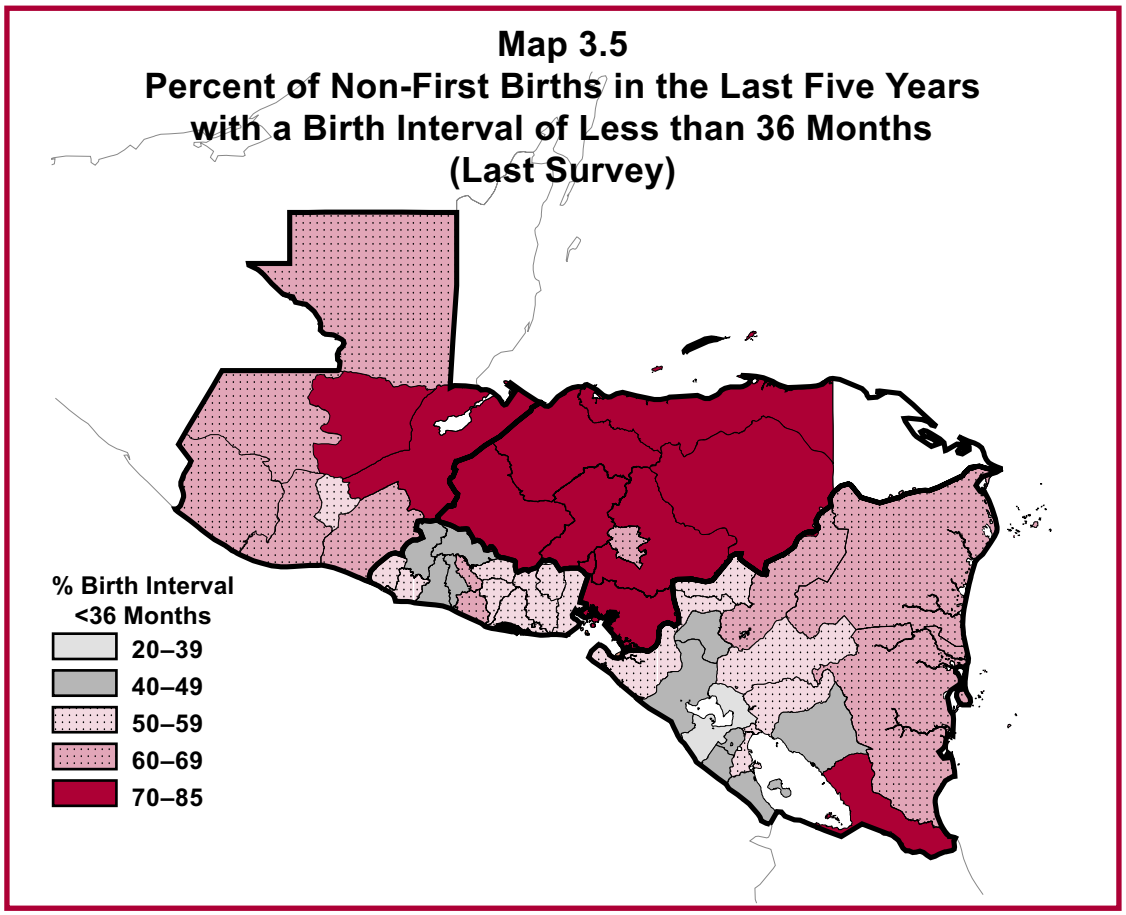
Table 3.6
Percent Currently in a Union, According to Age and Sex of Respondent: Women Aged 15–49 and Men Aged 15–59 (Most Recent Survey)

Sex	Age	El Salvador 2002/03	Guatemala 2002	Honduras 2001	Nicaragua 2001
Women	15–19	19.2	18.2	26.0	22.3
	20–24	51.5	56.9	57.7	55.5
	25–29	67.8	77.3	71.2	69.7
	30–34	78.2	81.3	78.1	76.1
	35–34	74.7	80.4	77.1	74.7
	40–44	71.5	84.4	73.9	71.0
	45–49	66.0	73.9	70.2	64.8
	15–49	56.4	60.4	59.7	56.8
Men	15–19	1.7	5.7	5.0	na
	20–24	36.3	42.0	33.5	na
	25–29	65.3	74.2	67.0	na
	30–34	82.0	77.9	80.6	na
	35–34	85.2	90.5	84.2	na
	40–44	76.1	86.3	86.8	na
	45–49	85.3	89.0	83.8	na
	50–54	84.6	91.8	93.3	na
	55–59	90.0	90.7	88.7	na
	15–59	56.9	57.9	54.1	na

Table 3.7 shows the proportion of births (in the five years before the survey) that occurred within various windows of time after the preceding birth. Data are shown for the most recent survey in each country, and first births are excluded from the calculations. Taking El Salvador as an example, it can be seen that just 9.5 percent of births occur within 18 months after the previous birth, but that 22.5 percent occur within two years and 51.5 percent within three years. Focusing on the column presenting the percent of births within 3 years, in El Salvador and Nicaragua slightly more than half of births occur within 3 years while in Guatemala and Honduras almost two thirds occur within 3 years.

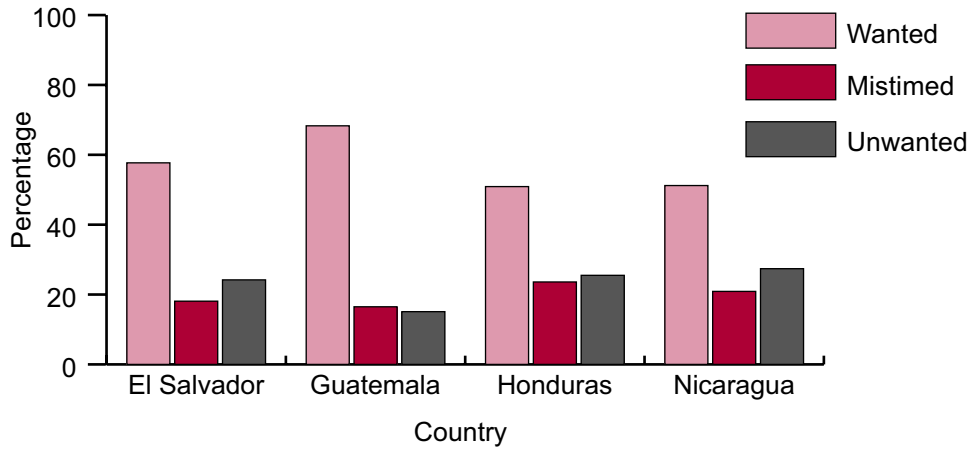
Table 3.7
Percent of Births Occuring Within Select Periods of Time Since the Previous Birth: Births of Order 2 and Higher in the Five Years Before the Survey (Most Recent Survey)

Country/Area	Year of Survey	Months since the previous birth					
		<18	<24	<30	<36	<48	<60
El Salvador	2002/03						
Total		9.5	22.5	39.3	51.5	66.8	78.1
Urban		7.3	19.4	33.0	43.2	57.7	71.2
Rural		11.1	24.7	43.8	57.4	73.3	83.0
Guatemala	2002						
Total		11.0	29.9	52.4	66.3	82.5	89.5
Urban		9.7	25.6	44.5	58.7	75.2	83.6
Rural		11.5	31.8	56.0	69.7	85.8	92.1
Honduras	2001						
Total		11.4	29.0	49.7	63.0	77.7	85.6
Urban		12.4	28.2	44.7	56.1	69.8	78.1
Rural		10.9	29.6	52.5	66.8	82.1	89.8
Nicaragua	2001						
Total		11.6	26.3	41.5	52.8	68.2	78.6
Urban		10.3	22.1	33.3	42.0	56.2	68.0
Rural		12.7	29.9	48.2	61.8	78.1	87.3



Map 3.5 shows the percent of births with a previous interval less than three years for sub-national regions. Almost all regions of Honduras and the northeast of Guatemala exhibit the highest percentages (70 percent or higher). Only isolated areas of El Salvador and Nicaragua have percentages below 50 percent and only the Department of Managua in Nicaragua has less than 40 percent of births with a short interval.

Graph 3.5
Percentage of Live Births That Were Wanted, Mistimed Or Unwanted: Live Births in the Five Years Prior to Interview (Most Recent Survey)



Reproductive Preferences

Graph 3.5 shows the percent distribution of births in the 5 years before the most recent survey, according to planning status of the birth. A birth is classified as "wanted" if the respondent planned it at the time it occurred. A birth is classified as "mistimed" if the respondent wanted the birth, but not at the time it occurred. And, a birth is classified as "unwanted" if the respondent did not want any more children. Despite having high fertility, Guatemala is the country with the highest percentage of births classified as "wanted" (68.3 percent) and the country with the lowest percentages classified as "mistimed" (16.5 percent) and "unwanted" (15.1 percent). Nicaragua has the highest percentage "unwanted" (27.4 percent), followed closely by Honduras (25.5 percent) and El Salvador (24.2 percent).

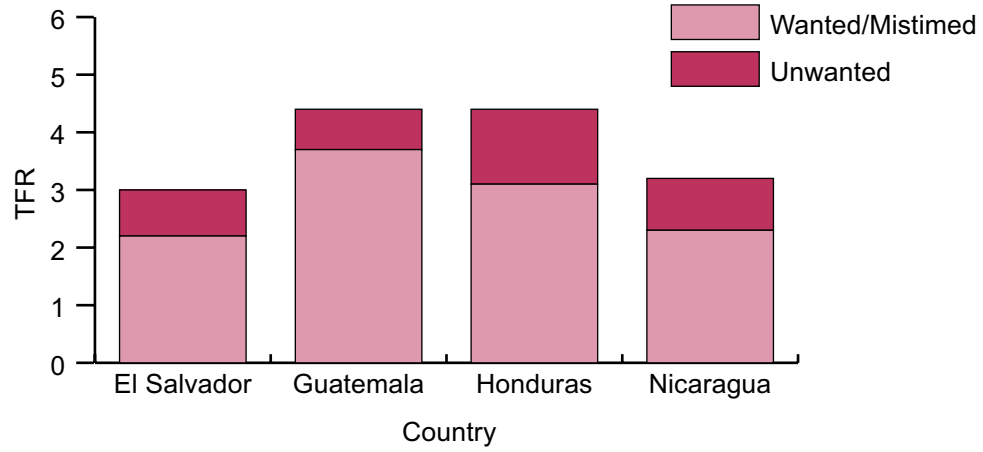
Table 3.8 and Graph 3.6 show the total fertility rates for the most recent survey in each country disaggregated into wanted/mistimed unwanted components. The unwanted TFR is computed the same as the overall observed TFR except that only births classified as "unwanted" are included in the numerators of the rates. The wanted TFR can be interpreted as the hypothetical TFR that would occur if all unwanted births had been avoided. The unwanted TFR is simply the difference between the observed TFR and the wanted TFR. El Salvador has both the lowest wanted TFR (2.2 births per woman) and the lowest unwanted TFR (0.8 births per woman) among these four countries. Guatemala has the highest wanted TFR (3.7 births per woman) and Honduras has the highest unwanted TFR (1.3 births per woman).

Table 3.8
Wanted and Unwanted Total Fertility Rates, According to Area of Residence: Women Aged 15–49 (Most Recent Survey)

		Total Fertility Rate		
Country/Area	Year of Survey	Wanted	Unwanted	Observed
El Salvador	2002/03			
Total		2.2	0.8	3.0
Urban		1.8	0.6	2.4
Rural		2.8	1.0	3.8
Guatemala	2002			
Total		3.7	0.7	4.4
Urban		2.8	0.6	3.4
Rural		4.3	0.9	5.2
Honduras	2001			
Total		3.1	1.3	4.4
Urban		2.5	0.8	3.3
Rural		3.8	1.8	5.6
Nicaragua	2001			
Total		2.3	0.9	3.2
Urban		1.8	0.8	2.6
Rural		3.0	1.4	4.4

Graph 3.7 shows the same information as Graph 3.6, but is disaggregated by area of residence. The results are similar to the national TFRs. Honduras has the highest unwanted TFR in both urban and rural areas (0.8 and 1.8 births per woman, respectively), and Guatemala has the highest wanted fertility in both areas (2.8 and 4.3 births per woman, respectively). While the wanted TFRs are higher in rural areas than in urban areas, the wanted TFRs for rural El Salvador and Nicaragua are remarkably low (2.8 and 3.0). It should be noted that the wanted TFR for urban areas in both El Salvador and Nicaragua of 1.8 children per woman is below the replacement level.

Graph 3.6
Total Fertility Rate, by Whether Births Were Wanted or Not (Most Recent Survey)



Graph 3.7
Total Fertility Rate, by Area of Residence and Whether Births Were Wanted or not (Most Recent Survey)

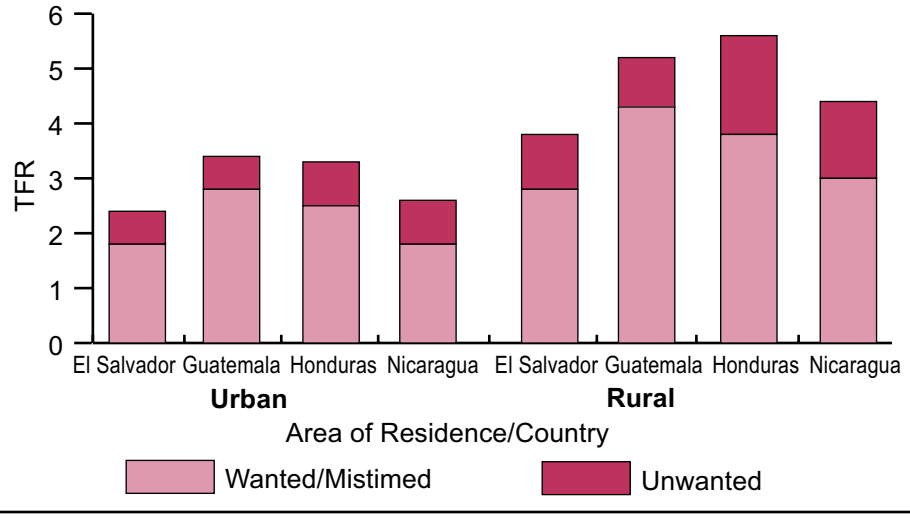


Table 3.9 shows the mean ideal family size for women and men, using data from the last survey. Focusing first on the women, the mean ideal family size is about 3 children in El Salvador, Honduras, and Nicaragua, while in Guatemala it is 3.4 children. In general, ideal family size reported by rural women exceeds that of urban women by about half a child. It should be noted that ideal family size at the national level has not changed in any of the countries between the earlier and the later survey (data not shown). The mean ideal family size reported by men does not substantially exceed women's ideal family size. The largest difference is found in El Salvador where men report 3.8 children as their ideal compared to 3.1 children reported by women.

Table 3.9
Mean Ideal Number of Children, According to Sex of Respondent and Area of Residence: Women Aged 15-49 and Men Aged 15-59 (Most Recent Survey)

		Ideal Number of Children	
Country/Area	**Year of Survey**	**Women**	**Men**
El Salvador	2002/03		
Total		3.1	3.8
Urban		2.7	3.1
Rural		3.6	4.5
Guatemala	2002		
Total		3.4	3.5
Urban		3.0	3.1
Rural		3.7	3.8
Honduras	2001		
Total		3.0	3.4
Urban		2.7	3.1
Rural		3.3	3.6
Nicaragua	2001		
Total		2.9	na
Urban		2.5	na
Rural		3.4	na

Summary of Findings

- Fertility levels have declined in all of the surveyed countries since the late 1980s or the early 1990s. The decline has been more accelerated in Nicaragua and El Salvador than in Guatemala and Honduras. According to the last survey conducted in each country, El Salvador has the lowest TFR (3.0 births per woman), followed closely by Nicaragua (3.2), while Guatemala and Honduras have the highest TFRs (4.4 births each).

- The age pattern of fertility is similar in each country, which is characterized by significant childbearing among women aged 15–19, peak fertility among women aged 20–24, and a gradual decline thereafter. However, the decline is more accelerated in Nicaragua and El Salvador than in the other two countries. In all countries, a high proportion of women who are 40 or more years old continue to have children, especially in Honduras and Guatemala.

- Substantial fertility differentials exist according to area of residence and educational level. As expected, the TFR of rural women and women with less formal education exceeds that of urban and more educated women. The differentials are more pronounced according to educational level. For example, the difference is more than four children between the lowest and highest levels of education in Guatemala.

- Ages at initiation of sexual activity and childbearing have not changed substantially over time in each of the countries. For women age at first intercourse ranges from 17.9 years to 18.4 years, age at first union ranges from 18.3 to 19.8 years, and age at first birth ranges from 19.6 years to 20.5 years. In sum, family formation begins early in these countries.

- Short birth intervals are a critical health problem in all four countries. Excluding first births, slightly more than half of all births in Nicaragua and El Salvador, and two thirds of births in Guatemala and Honduras are within 3 years of a previous birth.

- The data presented on the discrepancy between observed and wanted total fertility rates, and the planning status of births in the last 5 years, all suggest that many women are nowhere close to achieving their reproductive goals, and that there is still considerable unmet demand for family planning services.